# INFORMATION AND LEARNING TECHNOLOGY FOR LOW-RESOURCE SETTINGS
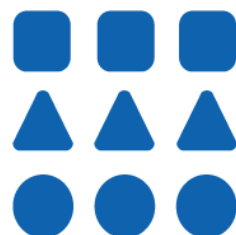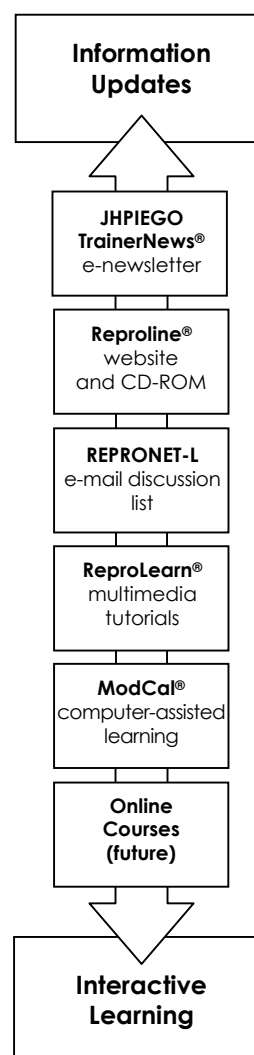
As healthcare organizations apply the performance improvement process to strengthen reproductive health services, they may find that faculty, trainers and providers need updated knowledge and skills to do their jobs effectively. In addition to the training and learning interventions designed to address this performance factor, faculty, trainers and providers also need ongoing support to sustain their level of performance. Such support may consist of:

- Up-to-date health information that is easily accessible and appropriate to the person's field
- Expert advice and peer support for problem solving
- Tools such as presentation materials and teaching aids for use in teaching students, training other providers and making clinical decisions
- Learning opportunities to extend knowledge

JHPIEGO now offers all of this support through computer technology.

Making information available in low-resource settings is often challenging: libraries may be inadequate, learning opportunities scarce, and expert advice difficult to obtain. JHPIEGO is meeting these challenges by offering on-demand information and learning technology to faculty members, trainers and reproductive healthcare providers, and students in nursing, midwifery and medical schools. These electronic job aids range from products and services almost exclusively providing information and tools to those requiring extensive interaction with the user to effect learning or problem solving.

**Information and Learning Technology Products and Services**

**Information Updates**

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**JHPIEGO TrainerNews®** e-newsletter

**Reproline®** website and CD-ROM

**REPRONET-L** e-mail discussion list

**ReproLearn®** multimedia tutorials

**ModCal®** computer-assisted learning

**Online Courses (future)**

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**Interactive Learning**

## HOW IS INFORMATION AND LEARNING TECHNOLOGY BEING USED?

Below are examples of how specific components of JHPIEGO's information and learning technology are being used to support performance.

Faculty members and trainers subscribing to **JHPIEGO TrainerNews®** receive an e-mail newsletter with tips and techniques for improving their job performance and notices of upcoming learning activities.

⇨ *A physician trainer from the Philippines incorporates training tips from JHPIEGO TrainerNews into his training modules used throughout the provinces.*

**Reproductive Health Online (ReproLine®), www.reproline.jhu.edu**, includes reference information and tools, on topics such as family planning, maternal and neonatal health and HIV/AIDS, that are specific to the job duties of reproductive healthcare providers, faculty members and trainers (who may in turn require their students to use it as a resource). For international sites with limited Internet access, the website content is also distributed on CD-ROM.

⇨ *A trainer conducting a contraceptive technology update for providers visits ReproLine for presentation graphics sets on a variety of family planning methods.*

ReproLine and other CD-ROM resources also provide the opportunity to exclusively publish materials electronically (such as the *Supervising Health Services: Improving the Performance of People* manual and *Managing Complications in Pregnancy and Childbirth* Learning Resource Package) for efficient and cost-effective distribution.

⇨ *A provider not able to afford the print version of a publication accesses the Internet or a CD-ROM at a computer center to make use of the materials for free.*

E-mail discussion lists on reproductive health topics (**REPRONET-L**) enable providers to obtain peer support and expert advice on job challenges.

⇨ *A physician in Indonesia discusses the safety of breastfeeding for an HIV-infected mother with a physician from The Johns Hopkins HIV Women's Health Program.*

Short, multimedia tutorials (**ReproLearn®**), distributed on a website and CD-ROM, allow for quick knowledge updates on new topics and contain hypertext links for exploring supporting material.

⇨ *In less than an hour, a nurse in Zambia updates her knowledge of voluntary counseling and testing for HIV-infected women.*

Computer-assisted learning packages **ModCal®** (**Modified Computer-Assisted Learning) for IUD** and **ModCal for Clinical Training Skills**) enable self-paced learning and incorporate monitoring and feedback in the form of pre-/post-tests and progress reviews. When used in the context of a clinical skills course, ModCal enables learners to complete the knowledge portion of a course independently, thus freeing the trainer to focus on providing help in skill development.

⇨ *Nurses in Jamaica use computer-assisted learning to acquire the knowledge to provide IUDs as a contraceptive method in preparation for developing skills in insertion and removal.*

⇨ *Nursing faculty members in Nepal update their knowledge using computer-assisted learning on Clinical Training Skills and IUDs, which they in turn use in their instruction.*

**Online courses** incorporate many of the other components (information, communication, advice, learning materials) in an integrated learning environment. (Future)

⇨ *Physicians in Zambia, Ghana and Kenya participate in an online course on contraceptive advances facilitated by a trainer in Uganda. (Future)*

## GETTING THE RIGHT INFORMATION AND LEARNING TO THE RIGHT PEOPLE AT THE RIGHT TIME

Even with the proliferation of personal computers in the home and office, telecenters and Internet cafés, many healthcare providers, faculty members, trainers and students in low-resource settings still lack sufficient access to computers and the Internet to meet their information and learning needs. To address these needs, JHPIEGO has established Technology-Assisted Learning Centers at preservice institutions and inservice training centers. JHPIEGO partners with these Internet-equipped computer centers to bring technologies that support performance to the people who need them, with the ultimate goal of strengthening reproductive health training and services.

For additional information about information and learning technology, contact Theresa Norton (tnorton@jhpiego.net).